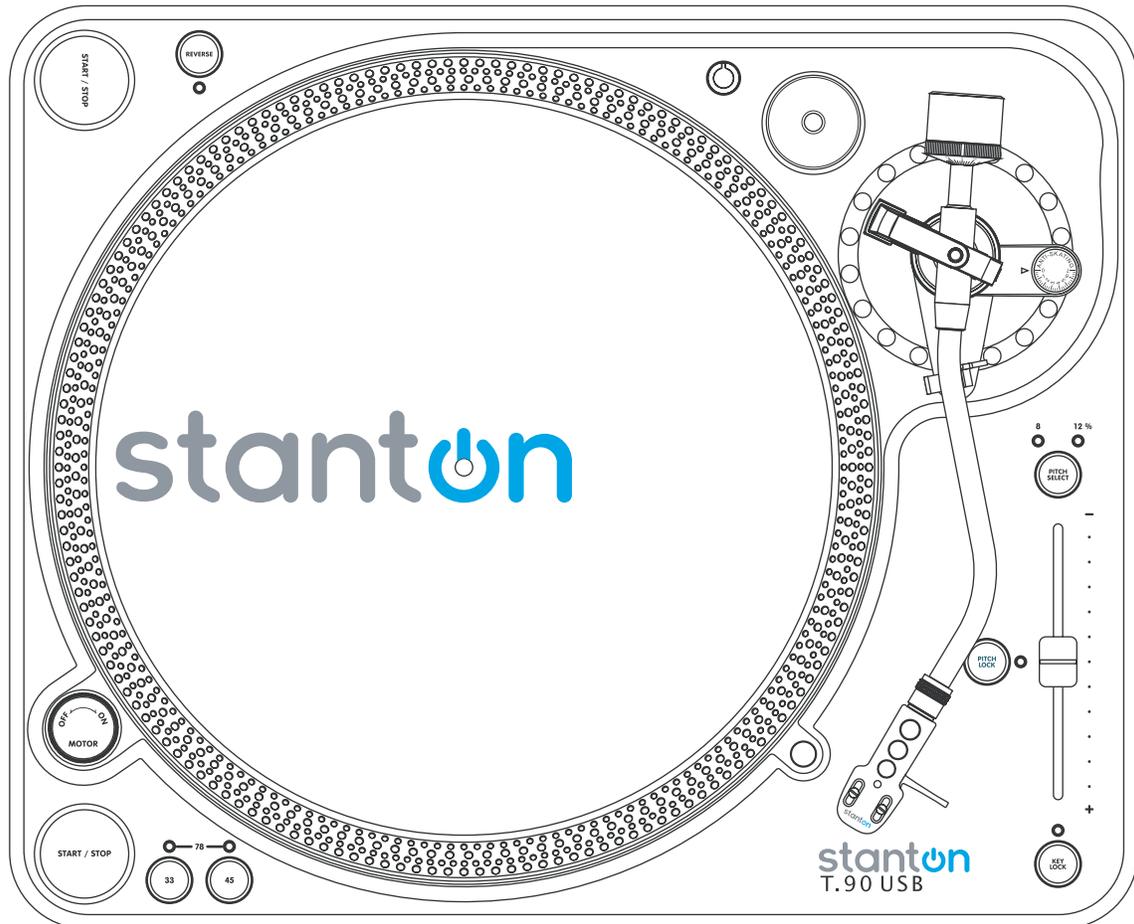# stanton

T.90 USB
DIRECT DRIVE TURNTABLE

USERS MANUAL

IMPORTANT SAFETY PRECAUTION

1. Read Instructions – All the safety and operating instructions should be read before this product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Wall or Ceiling Mounting – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
7. Heat – Appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
8. Power Sources – This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer the operating instructions.
9. Grounding or Polarization – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the appliance.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer. Clean by wiping with a cloth slightly damp with water. Avoid getting water inside the appliance.
12. Non-use Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
13. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings
14. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damage
15. Servicing –The user should not attempt any service to the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel..

16. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is the manufacturer's instructions have been adhered to.
17. Attachments – do not use attachments not recommended by the product manufacturer as they may cause hazards.
18. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use amounting accessory recommended by the manufacturer.
19. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
20. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
21. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
22. This product is in compliance with EUWEEE regulations. Disposal of end of life product should not be treated as municipal waste. Please refer to your local regulations for instructions on proper disposal of this product.
23. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: To reduce the risk of electric shock, do not remove any cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.

The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the use to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.

CAUTION: To prevent electric shock, do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

ASSEMBLY

Remove all the parts from the box. Please check to make sure the following items are included with the main unit in the carton:

- DISC x 1
- AC cord x 1
- RCA cable x 1
- USB cable x 1
- 45 rpm adapter x 1
- Counter weight x 1
- Platter x1
- Slipmat x 1
- Cartridge x 1
- Headshell x 1
- Instruction manual x 1
- Cloth dust cover x1

CONNECTIONS

1. Connect the power cord to an AC outlet.
2. Connect the RCA cable to the PHONO input of your mixer. You can also use a line input by setting the phono/line switch at the rear of the turntable to Line.

Set the phono/line switch to "PH".

Set the phono/line switch to "LINE".
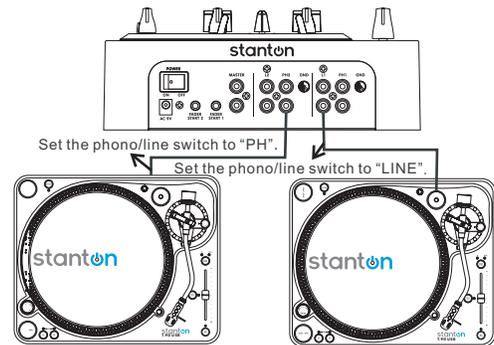
TONE ARM AND CARTRIDGE SETTING

The major cause of problems in sound and skipping on the vinyl is the lack of proper set up of the needle and turntable adjustments. The needle is designed to operate at a specific angle to the vinyl. The T.90 USB has several adjustments to correctly position the needle to the vinyl.

The first adjustment is the correct installation of the cartridge.

Your cartridge is to be mounted into the headshell as per the mounting instructions included with the cartridge. The Stanton 500,680 and 890 series of cartridges require the use of the two screws mounting into the headshell. For your convenience, some of these products can be purchased already mounted and pre-adjusted from your local Stanton dealer. If you are using these 1/2" mounted products with a headshell in a mobile application or you are doing heavy scratching, May want to use an extra shell weight. The Master series of products (Track master, Groove master, etc.) are designed with their own mounting that eliminates the need for a separate headshell and the wiring to the cartridge.

The body of the cartridge should be parallel with the centerline of the headshell-tone arm, when viewed from the front to the back.

The second adjustment is at the installation of the cartridge-head-shell assembly into the tone arm tube lock. Holding the tone arm tube in one hand, insert the cartridge-headshell into the tube lock with the other hand. Turn the lock ring clockwise (when viewed from the rear) until the headshell is locked tightly into the tone arm. Remove the needle protector from the cartridge and place the needle on record. View the needle from the front and insure that the needle is perpendicular to the record surface. If some adjustment is needed, simply loosen the lock ring and rotate the cartridge-headshell until the needle is perpendicular to the record surface. Then re-tighten the lock ring.

The third adjustment is the needle (or stylus) pressure. Start with the cartridge-headshell assembly mounted into the tone arm. Remove any needle protectors provided. With tone arm free, adjust the tone arm counterweight by rotating the rear section until the tone arm floats in a balanced condition above the record or mat. Do not allow the needle to drop onto the mat or the turntable platter during this adjustment. You might damage the needle tip. Now, carefully hold the tone arm in one hand while rotating the numbered ring on the front of the counter-weight with the other hand to the "0" setting. Next, without touching the numbered ring, Rotate the rear counterweight until the desired needle pressure reading is next to the line on top of the tone arm tube, see the instructions. Included with your cartridge for proper settings.

Visit www.stantondj.com for downloadable updates, videos, and news about this product.
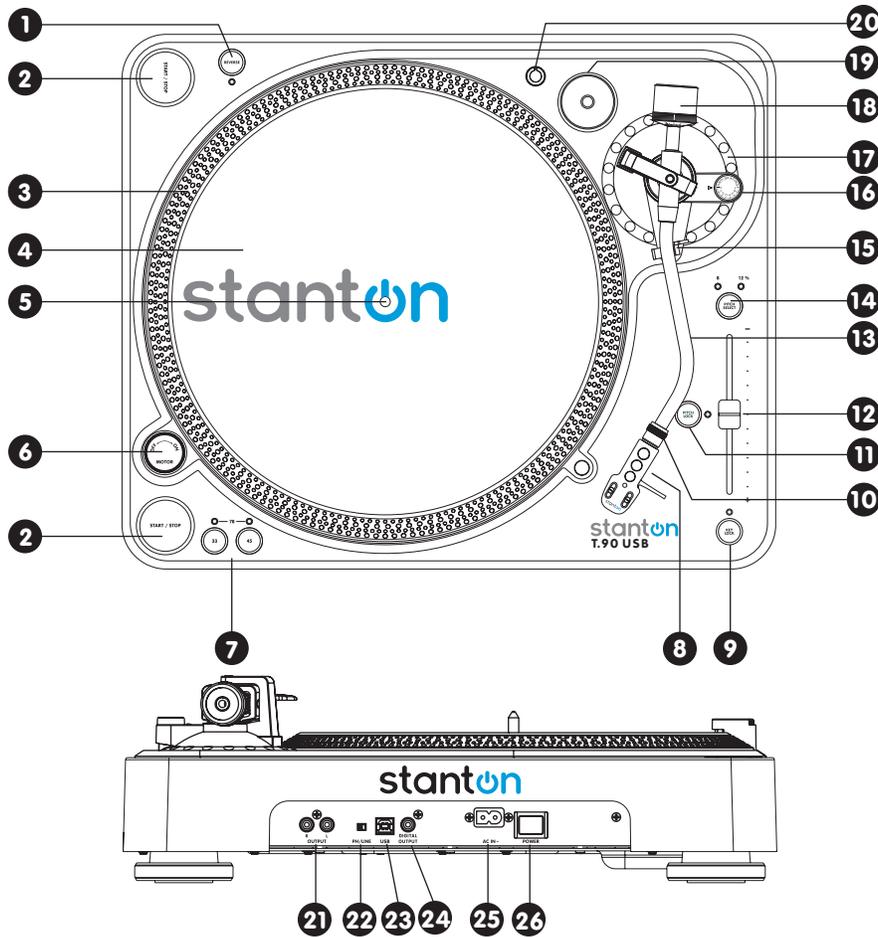
1. **REVERSE -** This button is used to reverse the direction of the platter rotation.

2. **START/STOP -** Press this button to start or stop the platter.

3. **STROBE DOTS -** The dots around the edge of the platter are used in conjunction with the light located inside the motor ON/OFF switch. While the platter is in rotation, the dots help to indicate the speed of rotation. The speed is lower than the displayed speed (33,45,78) when the dots are flowing to the right. It is higher than the displayed speed (33,45,78) when the dots are flowing to the left. When the strobe is stopped,the platter is rotating at the displayed speed.

4. **SLIP MAT**

5. **CENTER SPINDLE -** This spindle holds the turntable PLATTER and records stable and centered.

6. **MOTOR ON/OFF SWITCH -** As opposed to fully analog turntables, this is not the power switch. This switch only turns the motor on or off. Rotate clockwise to turn on the motor. The platter will not start spinning until the start/stop button has been pressed. Rotate counterclockwise during playback (off position) for a slow winding down effect.

7. **PLATTER REVOLUTION SPEEDS (rpm)**
   33 rpm – Press 33
   45 rpm – Press 45
   78 rpm – Press the 33 and 45 buttons simultaneously.
   To return to 33 or 45-rpm play mode, just press the desired button.

8. **HEADSHELL -** Install the cartridge here. When installing a cartridge, refer to the installation instructions supplied by the manufacturer of that cartridge.

9. **KEY LOCK -** Press to enable key lock. When Key Lock is on, the pitch slider will only affect the speed of the platter. The key (pitch) will remain at 0%. This speeds up the musical tempo without changing the pitch.

10. **HEADSHELL LOCKING NUT -** Attach the headshell by inserting it into the front end of the tone arm. Turn the locking nut clockwise with the head shell firmly held horizontally.

11. **PITCH ON/OFF -** The ON setting will allow you to use the Pitch Slider. When set to OFF, the pitch control will be locked at 0%.
.

12. **PITCH SLIDER -** The Pitch Slider is used to speed up or slow down the turntable platter.

13. **TONE ARM -** This is a fully manual tone arm. To start playback, gently place the stylus on the record using the headshell finger support. Do not drop the stylus onto the record as it may cause damage to the diamond tip and to the record.

14. **PITCH SELECT -** Press the button to select between +/-8% and +/-12% pitch range.

15. **TONE ARM CLAMP AND REST -** Use this rest for the tone arm and clamp it in position during transportation.

16. **ANTI SKATE KNOB -** When a record is playing, a force is generated drawing the stylus towards the center of the record. This control compensates for that force and needs to be set to the same value as the counter weight pressure ring.

17. **TONE ARM BASE -** The tone arm base includes tone arm rest.

18. **COUNTERWEIGHT -** Use this to balance the tone arm and to adjust the stylus pressure. See "Tone Arm and Cartridge Settings" for proper adjustments.

19. **45-RPM adapter HOLDER -** Place the attached 45-rpm adapter here. Push down the rear side of 45 rpm adapter to take it off.

20. **EXTRA HEADSHELL HOLDER -** Place extra headshell here.

21. **PHONO/LINE OUTPUT L & R -**This is the standard analog output (RCA jacks) which can be connected either to a phono or line input on any DJ mixer or stereo system, depending on the setting of the phono / line selector.

22. **PHONO/LINE SWITCH -** Switches the output to either phono or line level.

23. **USB SOCKET-** Connect the USB cable (included) to this socket and to a USB connector on your computer. After connecting the turntable to your computer, you can record your vinyl to your hard disk using the included Cakewalk Pyro 5 software.
Note: maximum USB cable length is 3m

24. **DIGITAL OUTPUT -** Use this output to connect your T.90USB to the S/PDIF digital input of any equipped digital device, such as a CDR or computer soundcard

25. **POWER CORD CONNECTOR -** Used to connect the included power cord.

26. **POWER SWITCH -** This switch turns the power on or off, including the motor and audio signal

CREATING A CD FROM AN LP

The T.90USB includes a USB computer interface and Cakewalk Pyro CD software for Windows. Macintosh users can download the free Audacity software for recording directly from the T.90 USB. By connecting the T.90USB to your computer and using the correct software, you can create custom CD's from your record albums.

In addition to creating CDs, you can edit the LP tracks, clean up clicks and noise, and apply special audio effects if desired. You can even make custom mixes with one track crossfading to another. To take full advantage of these features, be sure to read the User Manual supplied by Audacity and Cakewalk Pyro.

AUDACITY SOFTWARE OVERVIEW   (for MAC and PC users)

Audacity is free software, licensed under the GNU General Public License (GPL). More information as well as open source code can be found on the web at http://audacity.sourceforge.net/

*** Please ensure you have installed the software before starting.**

SET UP PROCEDURE

1. Start by connecting your *T.90USB* to the computer using a *USB* cable (included).

2. Download and install the Audacity recording software by visiting http://audacity.sourceforge.net/

3. Open the Audacity program.

4. Go to *EDIT* then *PREFERENCES*.

5. Click *AUDIO I/O* tab.
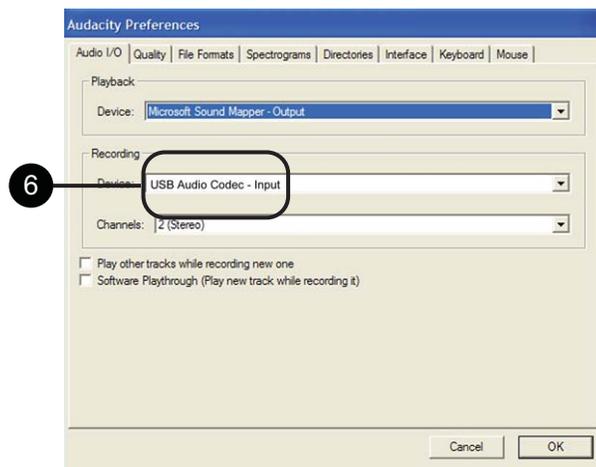


6. Choose recording device *USB AUDIO CODEC* from the drop down menu.

7. Choose *CHANNELS (2 STEREO)*.

8. Tick SOFTWARE PLAY THROUGH BOX.

9. Click OK. .

RECORDING & SAVING TRACKS
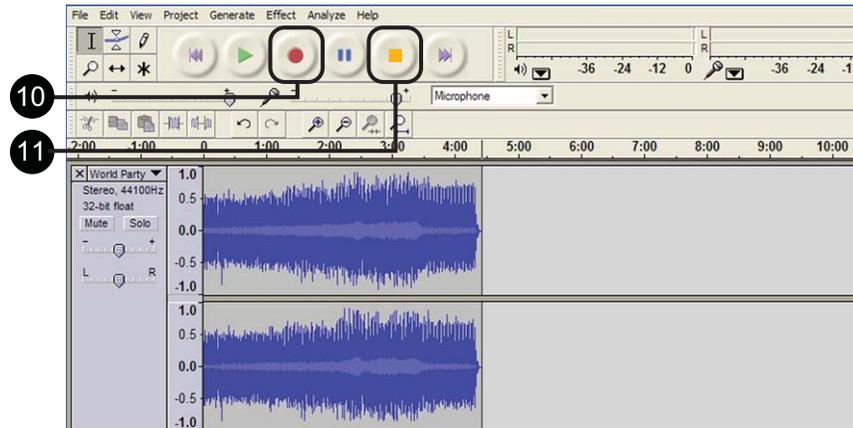
10. When you are ready to record, click the **RED** record button on the computer. Play the LP track to be recorded.

11. When you have finished the recording, click the **YELLOW** stop button. Click the **GREEN** play button to playback your finished recording.

    You can now click **FILE** and choose **Export As AIFF** (Macintosh) or **Wave** (Windows) to save the recording. This will save the entire recording as one audio file.
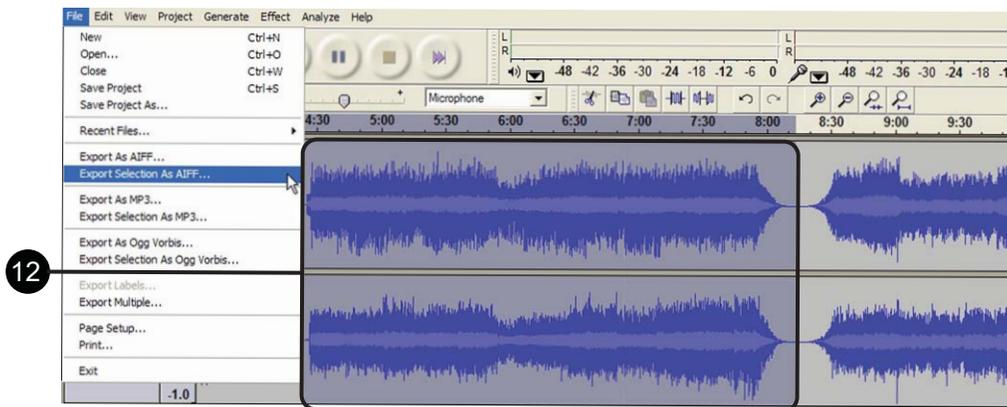
12. If you want to record the entire side of an LP, or a continuous selection of songs, repeat steps 1-3 above. When you are finished, you will be able to see each song as a waveform, with silence in-between each song. If you stop the recording and then start again, the new recording will appear as new audio tracks below the previous recording.

    If you want to separate the recorded audio into different tracks, drag the cursor over a song segment in the waveform window to highlight it, and then from the **FILE** menu select **Export Selection As AIFF** (Macintosh) or Wave (Windows). If you want to save it as an MP3 file, then choose **Export Selection As MP3**. Give the file a name when prompted. Repeat for each song segment.

13. You can remove silences at the start or end of the recording by dragging the cursor over the silent region and then choosing DELETE or CUT from the Edit window.

14. For a Macintosh, after you have recorded your tracks, burn them to a CD using the Mac OSX Finder, or with other Macintosh CD creation programs. For Windows, use Windows Explorer or another Windows CD creation program to burn a CD.

To start, insert your complimentary Cakewalk Pyro 5 CD into your disc drive on your computer and follow the installation instructions to completely install the software on your operating system. Complete instructions on how to use all the features of the software are included in the Help Menu.

To transfer and record transfer LPs to your hard drive from your T.90USB, start by connecting your T.90USB to your computer using a USB cable.
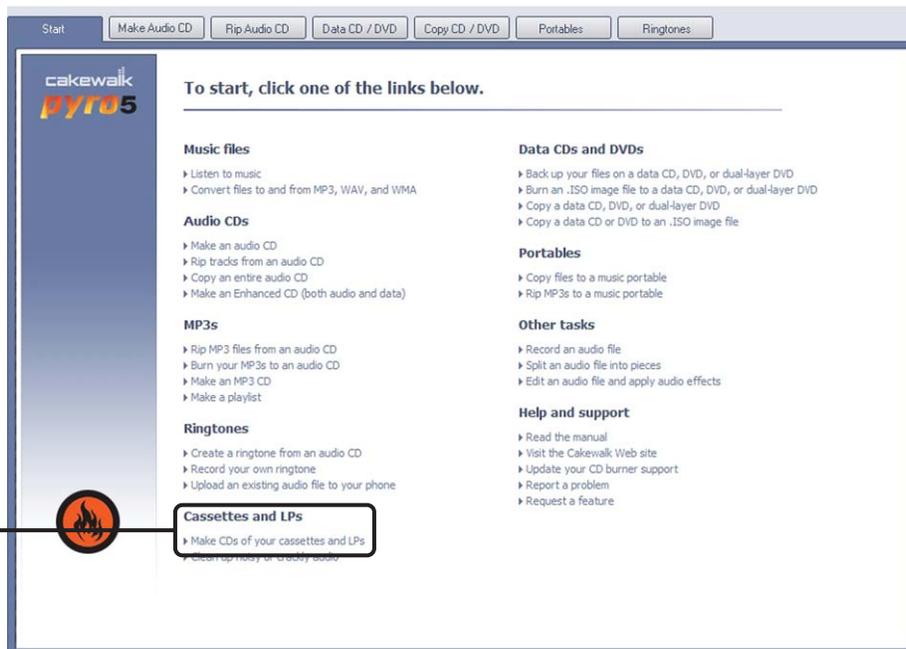

1. From the Cakewalk Pyro 5 main page beginning with the *Start* tab, start by clicking on the section entitled *Cassettes and LPs - Make CDs of your cassettes and LPs.*

   This will take you to the *Make Audio CD* tab where you will record tracks from your LPs to your computer.

2. On the **Make Audio CD tab**, type in the filename you wish to save the LP recording under and locate where you want the file to be stored.

3. You can record the entire side of an LP, a continuous selection of tracks, or just a single track. To begin recording, click the **Start Recording** button, and begin playing your LP on the T.90USB. You will see activity on the Check Volume bar representing the input level (or volume) of the track you are recording.

    When you are satisfied with the selection you have recorded, click **Stop**. In the Arranging Pane in the lower half of the screen, a waveform will appear representing what you have recorded. You can add more LP tracks (or another LP side) to the recording by repeating steps 2 and 3 above. When you are finished, the new recording will appear in the Arranging Pane after the first recording.
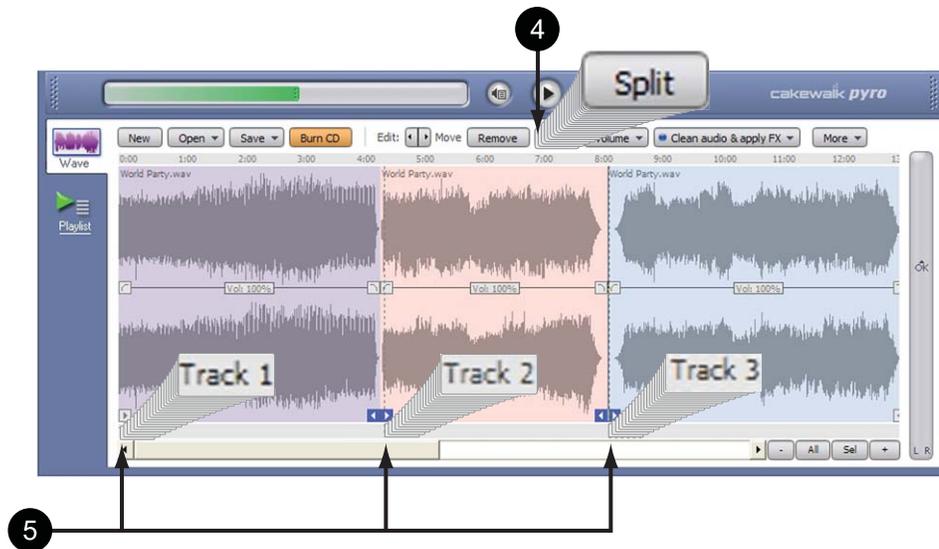
4. If you have recorded an LP side or a continuous selection of LP tracks, you can split them into individual tracks for the CD. At the end of each track, there will be a visual indication of silence in the waveform display. Place the cursor in this area between two tracks and press the **Split** button. Continue to do this to separate each track.

5. Underneath the waveform display is a bar where you can add CD track indicators. Simply click in this area at the start of each separated track, and it will add a **Track** number (1, 2, 3, etc.).
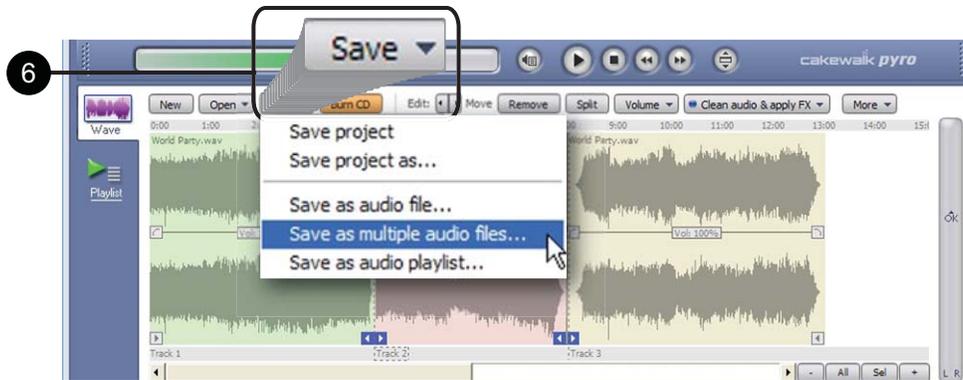
6. It's a good idea to save each of your tracks, at least temporarily, prior to burning a CD. The easiest way to do this is to press the *Save* button and choose *Save As Multiple Audio Files*.
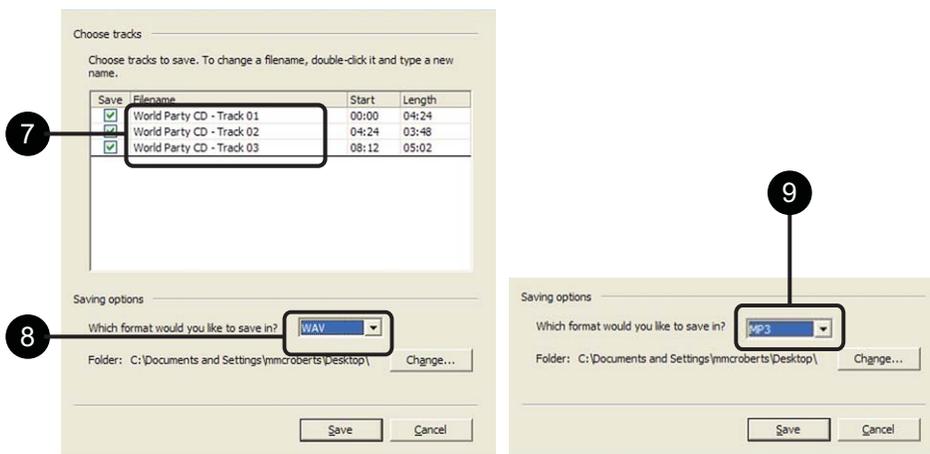
7. This brings up a dialog box offering several choices. The first choice allows you to choose which tracks you want to save. Click on the box to the left of the track to save it. You can also rename the tracks here by double-clicking on them and entering a new name.

8. Below the list of tracks are two options that allow you to choose the format to save the tracks in, and the location to save your tracks to on your disk drive. If you want to save the tracks with full CD-quality, choose WAV.

9. If you want to save the tracks as MP3 files, choose MP3.
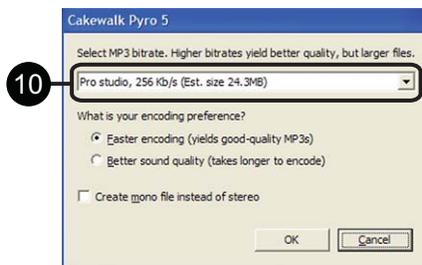
10. If you choose to save the tracks as MP3 files, then the next window allows you to choose the bitrate to save them in. Higher bitrates give you better quality sound.
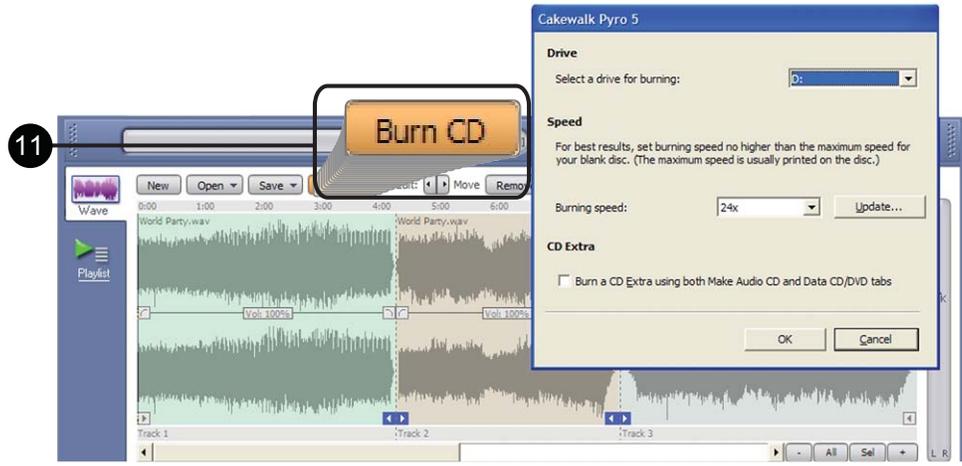
11. To create a CD, press the **Burn CD** button. This brings up a dialog where you can select the CD burner to use. Press the **OK** button, and your CD will be created.

SPECIFICATIONS

GENERAL   **Model: T.90 USB**
Dimensions: 452(W) x 370(D) x 143(H)mm
Weight: 8.6Kgs
Power supply: AC 100V, 50/60Hz (For Japan)
                                     AC 110V, 60Hz (For Taiwan)
                                     AC 120V, 60Hz (For U.S.A., Canada, Mexico)
                                     AC 220V, 50Hz (For United Arab Emirates, Chile, Argentina)
                                     AC 220V, 60Hz (For Philippines)
                                     AC 230V, 50Hz (For Europe, New Zealand, South Africa, Singapore, Israel)
                                     AC 240V, 50Hz (For Australia, U.K.)
Power consumption: 11W

STANDARD TEST CONDITION:
Ambient Temperature   20 +/- 2 deg. C
Relative Humidity   65% +/- 5%
NOTE: Measurements can be carried out between 5 deg. C to 35 deg. C and 45% to 85% relative humidity.

TURNTABLE SECTION:
Type   3-speed full manual
Motor   8pole, 3phase,brushless DC motor
Speeds   331/3 and 45rpm and 78rpm
Wow and Flutter   Less than 0.15% WRMS (JIS WTD) with 331/3 rpm
S/N Ratio   More than 50dB (DIN-B)
Pitch Controls   +/- 8%, +/-12%
Starting Torque   More than 1.6kgf.cm
Starting Time   Less than 1 sec. with 331/3 rpm
Braking Time   Less than 1 sec. with 331/3 rpm
Braking System   Electronic brake
Time for Speed Change   Less than 1 sec. from 331/3 to 45 rpm
                                     Less than 1 sec. from 45 to 331/3 rpm
                                     Less than 1 sec. from 331/3 to 78 rpm
USB Function   USB rec. Function
                                     A/D,D/A 16BIT 44.1KHz or 48KHz USB SELECTABLE
                                     Computer interface : USB 1.1compliant, WINDOWS XP or MAC OSX

TONEARM SECTION:
Type   Static balanced S-shaped tonearm with detachable headshell
Effective Arm Length   230.5mm
Overhang   16mm
Applicable Cartridge Weight   5.5 g
Tracking Error Angle   Less than 3 degree
Tracking Force Adjustment Range   3-4g
Anti-skating Range   0-7g
Needle Pressure range   2~5g

AUDIO SECTION:
Digital   Digital Output 0.5Vp-p +/-20% (LOAD 75 Ω)
Phono   Phono Output 2.5~5.0 mV at 1KHz 5cm/sec (HP-4005)
                                     Frequency Response 20Hz-20KHz +1/-3dB
                                     Channel Separation More than 14dB
                                     Channel Balance Within 2.5dB at 1KHz
Line   Line Output 36.8~73.5 mV at 1KHz 5cm/sec (HP-4005)
                                     Frequency Response 20Hz-20KHz/RIAA filter +1/-3dB

WARRANTY & RETURN POLICY

Warranty

Through Stanton's authorized dealers around the World, Stanton, or one of Stanton's authorized distributors outside the U.S., will, without charge, repair or replace, at the sole discretion of the entity responsible for making the repair or providing the replacement, any Stanton merchandise proved defective in material or workmanship for a period of one year following the date of original purchase. Exceptions to this warranty are as noted below:

The warranty for mechanical parts which are subject to wear and tear are limited to the earlier of either thirty (30) days following the date of original purchase or the following number of cycles: Faders - 15,000; Rotary potentiometers - 10,000; and Switches - 10,000.

Stanton will warrant all replacement parts and repairs for ninety (90) days from the date of original shipment. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Returns

Authorized Stanton dealers are only authorized to sell and distribute merchandise within a specific country. All goods requiring warranty repair or replacement must be returned (freight prepaid if not hand-delivered) to the authorized Stanton dealer from whom the merchandise was purchased and in the same country where the merchandise was purchased. For purposes of purchases made via the Internet, the merchandise must be returned to the authorized Stanton dealer in the country where the authorized Stanton dealer which sold the merchandise to purchaser is located and not the authorized Stanton dealer in the country where the purchaser is located or the country in which the merchandise was received. Any returns to a non-authorized dealer or to an authorized Stanton dealer not in the same country as the merchandise was intended to be sold or as set forth above will void this warranty.

To initiate a warranty repair, you must contact the authorized Stanton dealer from whom you purchased the merchandise, and follow such authorized Stanton dealer's return policy.

Stanton assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the merchandise. Stanton's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party, or product liability, and relating to the merchandise shall not exceed the price received by Stanton from your purchase of such merchandise. In no event will Stanton be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Stanton or otherwise. To the extent permitted by law and except as otherwise provided above, Stanton disclaims any express or implied warranties of merchantability or fitness for a particular purpose.

The above warranty provides you with specific legal rights. You may also have additional rights, which are subject to variation from state to state and country to country.

If there is a dispute regarding the warranty of merchandise that does not fall under the warranty conditions stated above, please include a written explanation with the merchandise when returned pursuant to the terms and conditions set forth herein.

Please register your product online at www.stantondj.com.